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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/410,316	10/01/1999	MARK ROBERT GIBSON	584-1013	6689

7590

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EXAMINER

JAGANNATHAN, MELANIE

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 11/27/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application

09/410,316

Applicant(s)

GIBSON ET AL.

Examiner

Melanie Jagannathan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 16-19 is/are rejected.
- 7) ☒ Claim(s) 12-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitation “the first and second paths correspond” is vague and is indefinite as what corresponds with the paths. Applicant is requested to make proper amendment to the claim language.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C.

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122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims **1, 6, 16** and **19** are rejected under 35 U.S.C. 102(e) as being anticipated by Christie U.S. Patent Number 5,991,301. Regarding claims **1, 6, 16** and **19**, the claimed method of establishing a connection between two endpoints in a communications network comprising a management layer and a physical layer where the management layer is anticipated by the signaling processing system (Figure 1, element 160) for receiving and processing call signaling and the physical layer is anticipated by the ATM network (element 150) for transmitting the ATM cells containing the call information over a virtual connection and the two endpoints being the users (elements 110 and 120). The claimed physical layer comprising endpoints and a plurality of nodes interconnected by links is anticipated by endpoints being users (elements 110 and 120) and the ATM cross-connect (Figure 5, elements 542, 544, 546). The claimed management layer comprising a plurality of management nodes each being connected to a physical node is anticipated by the STPs (Figure 5, elements 518, 520, 522 and 524) being connected to the ATM cross-connect.

The claimed establishing of a first path over the management layer between two management nodes where each management node is connected to an endpoint is anticipated by the user sending a initial address message to STP (element 518) and this message further being sent to STP (element 520) for processing of the call and the STPs being connected to the users which are the endpoints (Figure 5, elements 510, 512, 514 and 516).

The claimed establishing of a second path between said endpoints over the physical layer, the first and second paths corresponding where the establishing of the second path is performed

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as an integral part of establishing the first path is anticipated by receiving the call from the user by way of the signal processing system and transmitting it to the ATM multiplexer (Figure 5, elements 130 and 140) and converting the user information into ATM cells and transmitting the cells over the selected virtual connection to another user.

Regarding claim 19, the claimed computer program stored on a computer readable medium for controlling a communications network is anticipated by the signal processing system (Figure 1, element 160).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 2-5, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christie in view of Chuah et al. U.S. Patent Number 6,408,001.

Christie discloses all the limitations of the claims except for the connection providing a specified level of quality of service for a specified communication session using that connection (as in claim 2), the connection being suitable for internet protocol traffic (as in claims 3, 17), a message protocol which involves the use of labels is used to establish second path (as in claim 4), the labels being advertised by one or more of the physical nodes (as in claim 5) and the communications network being a MPLS communication network (as in claim 18).

Regarding claim 2, the claimed connection providing a specified level of quality of service for a communication session is disclosed by Chuah where a method includes a label stack appended to the packet and one of the entries of the stack being a Class of Service field used to define a guaranteed Quality of Service between provider and subscriber. See column 7, lines 3-14. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to provide a guaranteed level of Quality of Service for a communication session of Christie. A person of ordinary skill in the art would be motivated to do this as it allows for proper message transmission without problems such as service interruptions or noise in the connection.

Regarding claims 3 and 17, the claimed connection being suitable for internet protocol traffic is disclosed by Chuah where the method involves using a label switching router operable to forward IP packets and a label appended to an IP packet. See column 1, lines 45-55. Also see Figure 5, IP packets (elements 510-540). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to make the connection of Christie suitable for internet protocol traffic. A person of ordinary skill in the art would be motivated to do this since Christie discloses the use of a packet-switched network, in particular an ATM network, as

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part of a call connection and an internet protocol network is another example of a packet-switched network that would be able to be used for a call connection.

Regarding claim 4, the claimed message protocol involving the use of labels is disclosed by Chuah with the use of multi-protocol label switching network. See Figure 4. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use a message protocol involving the use of labels in the system of Christie. A person of ordinary skill in the art would be motivated to do this since multi-protocol label switching addresses the areas of speed and quality of service management that improve the performance of a system.

Regarding claim 5, the claimed labels being advertised by one or more of the physical nodes are disclosed by the use of advertisement class messages by label switching routers. See Figure 4, LSR 1-8 (element 402). Also see column 5, lines 39-52. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have labels being advertised. A person of ordinary skill in the art would be motivated to do this since it allows the label switching router to distribute label mapping for a packet stream to LSR peers so that each label is bound to a specific network layer route. See column 5, lines 29-47.

Regarding claim 18, the claimed communications network being a MPLS communication network is disclosed by Chuah et al. in Figure 4. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use a MPLS communication network. A person of ordinary skill in the art would be motivated to do this as it addresses the problem of quality of service management and traffic engineering.

8. Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christie in view of Hsu U.S. Patent Number 6,363,319. Christie discloses all the limitations of the claims

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except for a method including determining a plurality of possible first paths between endpoints, determining a measure of preference for each path and reserving bandwidth according to the measures of preference (as in claim 7), the physical layer configured to have a plurality of links of a specified capacity (as in claim 8), nodes in the physical layer connected to a link of specified capacity are arranged to advertise information about that link (as in claim 9), the information comprising the source, destination and capacity of the link (as in claim 10), and the information comprising a label for use by a message protocol in order to traverse the link (as in claim 11).

Regarding claim 7, the claimed determining of a plurality of possible first paths between endpoints, determining a measure of preference for each path and reserving bandwidth according to the measures of preference is disclosed by Hsu in a constraint-based route selection technique where a route for a flow is selected from a plurality of network paths based on cost, bandwidth requirement and priority and an optimal path being selected. See column 1, lines 41-45 and column 3, lines 2-6. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to determine an optimal path from a plurality of paths based on certain constraints. A person of ordinary skill in the art would be motivated to do this since it allows for increased traffic efficiency by taking into account bandwidth and traffic requirements. See column 1, lines 60-62.

Regarding claim 8, the claimed physical layer configured to have a plurality of links of a specified capacity is disclosed by Hsu with the calculation of the current available bandwidth of each link in the step of biased cost route selection which includes the use of the physical capacity of the link. See column 6, lines 45-55. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have the links have a specified capacity. A

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person of ordinary skill in the art would be motivated to do this since it allows for increased traffic efficiency by taking into account bandwidth requirements in order to determine the optimal route. See column 1, lines 60-62.

Regarding claims 9, 10, and 11 the claimed nodes in the physical layer connected to a link of specified capacity being arranged to advertise information about that link (claim 9) comprising source, destination and capacity (claim 10) in a label (claim 11) is disclosed by Hsu in a route selection method establishing MPLS label switched paths where summary LSAs advertise available bandwidths to destination networks and advertise a link's physical capacity. See column 3, lines 66-67 and column 4, lines 1-2, column 4, lines 10-17 and column 5, lines 53-54. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have the nodes in the physical layer connected to a link of specified capacity be arranged to advertise source, destination and capacity information about that link. A person of ordinary skill in the art would be motivated to do this since it allows the routers to determine and choose the optimal path for use for increased traffic efficiency.

Allowable Subject Matter

9. Claims 12-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Jagannathan whose telephone number is 703-305-8078. The examiner can normally be reached on Monday-Friday from 8:00 a.m.-4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 703-308-5463. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9315 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

MJ
November 22, 2002

Seema S. Rao
Seema S. Rao
Supervisory Patent Examiner
AU 2666
November 22, 2002